



Yovani Baez-Rose
Assistant City Manager/DPD Director

Camilo Espitia
Deputy Director

MEMORANDUM

TO: Thomas A. Golden, Jr., City Manager 

FROM: Yovani Baez-Rose, Assistant City Manager/DPD Director

CC: Elizabeth Oltman, PE, Transportation Engineer
Alan Heredia, Assistant Transportation Engineer

SUBJECT: MOTION OF 5/30/23 – Councilor Yem – Request City Manager Have The Appropriate Department Consider Making The Intersection Of Mount Vernon And Cross Streets A Four-Way Stop

The City Transportation Engineer conducted an evaluation of the intersection of Mount Vernon Street and Cross Street to determine the potential impact of the implementation of all-way stop control. Currently, the Cross Street approaches are under stop sign control and Mount Vernon Street is free-flowing. A site visit to the intersection was performed during the afternoon weekday peak commuter hours. During the site visit, low traffic volumes were observed traveling through the intersection on Cross Street. The review of recent crash data at the intersection of Mount Vernon Street and Cross Street showed that three (3) angle crashes have occurred at the intersection since 2020, with eight (8) total crashes during the past three years, as reported to MassDOT's IMPACT Portal.

The Manual of Uniform Traffic Control Devices (MUTCD) warrants for application of multi-way stop control include a minimum volume requirement, a notable crash history, and the similar operating characteristics of the two roadways. The intersection of Mount Vernon Street and Cross Street does not meet the crash history requirement of "five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation." The vehicular traffic volumes along Mount Vernon Street increase most notably when there are delays at the signalized intersections of School Street with Pawtucket Street and Broadway Street and motorists use Mount Vernon Street to bypass the delays. However, the intersection does not meet the minimum volume criteria of at least 300 vehicles per hour for 8 hours of an average day on the major street (Mount Vernon Street) plus 200 vehicles, pedestrians or bicycles per hour for the same 8 hours on the minor street (Cross Street). The on-street parking along Mount Vernon Street can constrain the sight distance for vehicles traveling east on Cross Street when vehicles park too close to the intersection. DPD will request that LPD continue to enforce, when possible, the 20-foot minimum setback for parking from any intersection.

The intersection of Mount Vernon Street and Cross Street does not meet the minimum criteria for implementation of all-way stop control and the Transportation Engineer does not recommend a change in traffic control at the intersection at this time. It is noted that the installation of all-way stop control at the intersections of Mount Vernon Street with Bowers Street and Varney Street has reduced the number of crashes at these intersections. The continued use of Mount Vernon Street as a bypass route by frustrated drivers indicates that a traffic calming evaluation of Mount Vernon Street between Varney Street and Broadway Street is appropriate. The Transportation Engineer will perform that evaluation in accordance with the Lowell Neighborhood Traffic Calming Program.

EMO